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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,844	03/30/2004	Jonathan J. Hull	20412-08497	6502

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FENWICK & WEST LLP
SILICON VALLEY CENTER
801 CALIFORNIA STREET
MOUNTAIN VIEW, CA 94041

EXAMINER	
STEVENS, ROBERT	

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2162	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,844	HULL ET AL.	
	Examiner	Art Unit	
	Robert Stevens	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8,10,12-22,25,27-29,31,33-42,44 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,10,12-22,25,27-29,31, 33-42 and 44-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20071030, 20071210*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Office withdraws the previous rejections of the claims under 35 USC §103(a), in light of the amendment. However, the Office sets forth new rejections of the claims under 35 USC §§112-2nd paragraph and 103(a), in light of the amendment.

Response to Arguments

2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 31 is rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim is vague and ambiguous, and thus, its scope is indeterminable.

Regarding claim 31: This claim recites "a timeline". It is unclear whether this term is referring to the same "timeline" recited in parent claim 25 in lines 8 and 12. Thus, this claim is vague and ambiguous, and its scope is indeterminable.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-6, 8, 10, 12-22, 25, 27, 31, 33-42 and 44-45 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Scott R. Klemmer et al. ("Books With Voices: Paper Transcripts as a Tangible Interface to Oral Histories", CHI 2003, Fort Lauderdale, FL, Apr. 5-10, 2003, pp. 89-96, hereafter referred to as "Klemmer") in view of Graham et al. (US Patent No. 6,369,811, filed Sep. 9, 1998 and issued Apr. 9, 2002, hereafter referred to as "Graham").

Regarding independent claim 1: Klemmer teaches ***A computer system for generating a representation of time-based media, the system comprising: a feature extraction module for: extracting features from media content;*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of an MPEG-2 video from a video source.) ***and generating a media representation representing the features extracted;*** (See Klemmer page 92 in the top paragraph of the right column discussing the making of corresponding JPEG thumbnails.) ***a formatting module for formatting the media representation generated, the formatting module being communicatively coupled to the feature extraction module to apply features extracted to the media representation, wherein the formatting module formats the media representation according to a representation specification;*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of a paper layout from a time stamped transcript.) ***wherein the formatted media representation includes a graphical representation of a timeline and a plurality of user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features, wherein the plurality of selectable identifiers are linked to locations on the timeline.*** (See Klemmer page 91 in the last paragraph of the right column discussing the adding of time code information to the print format. See also page 92 Fig. 3 showing barcodes linking chronological sections of a book to A/V data and page 92 in the top paragraph of the right column discussing the creating of a paper layout from a time stamped transcript.)

However, Klemmer does not explicitly teach the remaining limitations as claimed. Graham, though, discloses ***and a printer for printing the formatted media representation, the printer being communicatively coupled to the formatting module to receive instructions for***

printing a document displaying the formatted media representation, (See Graham Fig. 4A #408 and col. 5 lines 32-50 teaching the printing of a paper reader's assistant document having an imprinted thumbnail and teaching additional information as being a "discussion" of user interests.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Graham for the benefit of Klemmer, because to do so allowed a designer to implement a mechanism to personalize a document for a particular user, as taught by Graham in the Abstract. These references were all applicable to the same field of endeavor, i.e., annotation of paper documents with electronic information.

Regarding claim 2: Klemmer teaches ***module further comprises content recognition software for recognizing features in the media content.*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of an MPEG-2 video from a video source.)

Regarding claim 3: Klemmer does not explicitly teach the remaining limitations as claimed. Graham, though, discloses ***processing logic for controlling a printer driver interface associated with the printer.*** (See Graham col. 6 lines 4-7 discussing the use of Postscript printing.)

Regarding claim 4: Klemmer does not explicitly teach the remaining limitations as claimed. Graham, though, discloses ***processing logic for controlling a printer console on the printer.*** (See Graham col. 6 lines 4-7 discussing the use of Postscript printing.)

Regarding claim 5: Klemmer teaches ***wherein the feature extraction module is further adapted to generate the media representation in digital format.*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of an MPEG-2 video from a video source.)

Regarding claim 6: Klemmer teaches ***wherein the feature extraction module is further adapted to generate the media representation in paper format.*** (See Klemmer page 92 Fig. 3 and the top paragraph in the right column teaching a video paper system.)

Regarding claim 8: Klemmer teaches ***wherein at least one of the user-selectable identifiers comprises a barcode printed on the document displaying the media representation.*** (See Klemmer page 92 Fig. 3 showing the incorporation of barcodes on a video paper system document.)

Regarding claim 10: Klemmer teaches ***wherein the barcode on the document can be scanned to play the associated media content segment on a display device.*** (See Klemmer page 89 Abstract and page 92 in the 1st paragraph under "**Hardware**" discussing barcode scanning and video playback.)

Regarding claim 12: Klemmer teaches ***wherein the graphical representation includes audio content displayed as an audio waveform timeline***. (See Klemmer page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcodes to time code metadata information.)

Regarding claim 13: Klemmer teaches ***wherein the timeline includes markers along its length that correspond to user-selected segments of media content***. (See Klemmer page 92 Fig. 3 showing barcode markers associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcodes to time code metadata information.)

Regarding claim 14: Klemmer teaches ***wherein the timeline includes markers along its length that correspond to segments of audio content, the segments being defined by a search for particular features within the media content***. (See Klemmer page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcode markers to time code metadata information.)

Regarding claim 15: Klemmer teaches ***wherein the timeline includes markers along its length that correspond to segments of media content, at least one of the markers having text information describing the segment of media content***. (See Klemmer page 92 Fig. 3 showing barcodes and associated textual passages.)

Regarding claim 16: Klemmer teaches ***wherein the timeline includes markers along its length that each correspond to a segment of the media content, at least one of the markers having timestamp information describing the segment of the media content***. (See Klemmer page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcodes to time code metadata information.)

Regarding claim 17: Klemmer teaches ***wherein the media representation includes a header describing the media content***. (See Klemmer page 91 bottom paragraph in the right column discussing the placement of metadata in a header.)

Regarding claim 18: Klemmer teaches ***wherein the feature extraction module is further adapted to generate the media representation is generated according to format specifications included in a data structure***. (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

Regarding claim 19: Klemmer teaches ***wherein the format specifications included in the data structure comprise a number of user-definable fields specifying a format of a graphical representation of the media content***. (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

Regarding claim 20: Klemmer teaches ***wherein the format specifications included in the data structure comprise a number of user-definable fields specifying a layout of the media representation***. (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

Regarding claim 21: Klemmer teaches ***wherein the format specifications included in the data structure comprise a number of user-definable fields specifying the media content markers included in the media representation***. (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

Regarding claim 22: Klemmer teaches ***wherein the format specifications included in the data structure comprise a number of user-definable fields specifying the feature extraction techniques applied to the media content***. (See Klemmer page 92 in the top paragraph in the right column discussing the creation of MPEG-2 and the use of a layout transcript.)

Regarding independent claim 25: Klemmer teaches ***A method for generating a representation of time-based the method comprising: extracting features from media content;*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of an MPEG-2 video from a video source.) ***generating a media representation representing the features extracted;*** (See Klemmer page 92 in the top paragraph of the right column discussing the making of corresponding JPEG thumbnails.) ***formatting the media representation according to a representation specification, the formatting including applying the features extracted to the media representation extraction information;*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of a paper layout from a time stamped transcript.) ***and wherein the formatted media representation includes a graphical representation of a timeline and a plurality of user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features, wherein the plurality of selectable identifiers are linked to locations on the timeline.*** (See Klemmer page 91 in the last paragraph of the right column discussing the adding of time code information to the print format. See also page 92 Fig. 3 showing barcodes linking chronological sections of a book to A/V data and page 92 in the top paragraph of the right column discussing the creating of a paper layout from a time stamped transcript.)

However, Klemmer does not explicitly teach the remaining limitations as claimed. Graham, though, discloses ***printing a document displaying the formatted media representation,*** (See Graham Fig. 4A #408 and col. 5 lines 32-50 teaching the printing of a paper reader's

assistant document having an imprinted thumbnail and teaching additional information as being a "discussion" of user interests.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Graham for the benefit of Klemmer, because to do so allowed a designer to implement a mechanism to personalize a document for a particular user, as taught by Graham in the Abstract. These references were all applicable to the same field of endeavor, i.e., annotation of paper documents with electronic information.

Regarding claim 27: Klemmer does not explicitly teach the remaining limitations as claimed. Graham, though, discloses ***wherein extracting features of media content further comprises performing keyword searching on the media content.*** (See Graham col. 7 lines 50-65 discussing the use of keywords and keyphrases.)

Regarding claim 31: Klemmer teaches ***wherein the graphical representation includes an audio content waveform displayed along a timeline***. (See Klemmer page 92 Fig. 3 showing text data displayed, the particular data chosen to display having been an obvious variant. See also page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcodes to time code metadata information.)

Regarding claim 33: Klemmer teaches ***wherein at least one of the user-selectable identifiers comprises a barcode printed on the document displaying media representation***. (See Klemmer page 92 Fig. 3 showing barcodes printed on a video paper document.)

Regarding claim 34: Klemmer teaches ***wherein the user scans the barcode to play the associated media content on a display device***. (See Klemmer page 92 in the 1st paragraph in the right column under "**Hardware**" discussing the use of a barcode scanner.)

Regarding claim 35: Klemmer teaches ***further comprising generating markers along the timeline, the markers corresponding to user-selected media content***. (See Klemmer page 92 Fig. 3 showing barcodes, in the context of page 91 in the bottom paragraph in the right column discussing the adding of timecode metadata.)

Regarding claim 36: Klemmer teaches ***further comprising generating markers along the timeline, at least one of the markers corresponding to features extracted from the media content***. (See Klemmer page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcode markers to time code metadata information.)

Regarding claim 37: Klemmer teaches ***further comprising generating markers along the timeline, at least one of the markers including text information describing the media content***. (See Klemmer page 92 Fig. 3 showing barcodes and associated textual passages.)

Regarding claim 38: Klemmer teaches ***further comprising generating markers along the timeline, at least one of the markers including timestamp information describing the media content.*** (See Klemmer page 92 Fig. 3 showing barcodes associated with Voices augmented paper transcripts in the context of the bottom paragraph in the right column discussing the adding of barcodes to time code metadata information.)

Regarding claim 39: Klemmer teaches ***wherein printing the media representation further comprises printing a header describing the media content.*** (See Klemmer page 91 bottom paragraph in the right column discussing the placement of metadata in a header.)

Regarding claim 40: Klemmer teaches ***wherein printing the media representation further comprises generating a representation in digital format.*** (See Klemmer page 92 in the top paragraph of the right column discussing the creating of an MPEG-2 video from a video source.)

Regarding claim 41: Klemmer teaches ***wherein printing the media representation further comprises printing a representation in paper format.*** (See Klemmer page 92 Fig. 3 showing "Books with Voices augmented paper transcripts".)

Regarding claim 42: Klemmer teaches ***wherein formatting the media representation according to the representation specification further comprises defining a format of the media representation using a data structure with format specifications***. (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

Regarding claim 44: Klemmer teaches ***further comprising applying a barcode generation algorithm to render a barcode image including identifier information***. (See Klemmer page 92 Fig. 3 showing barcodes that link to further information, it being implied that such information requires an identifier for the purposes of storing/locating that information.)

Regarding claim 45: Klemmer teaches ***further comprising applying a barcode algorithm to render a barcode image including timestamp information.*** (See Klemmer page 92 top paragraph in the right column discussing the creation of a paper layout based upon a transcript.)

8. **Claims 28-29 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Scott R. Klemmer et al. ("Books With Voices: Paper Transcripts as a Tangible Interface to Oral Histories", CHI 2003, Fort Lauderdale, FL, Apr. 5-10, 2003, pp. 89-96, hereafter referred to as "Klemmer") in view of Graham et al. (US Patent No. 6,369,811, filed Sep. 9, 1998 and issued Apr. 9, 2002, hereafter referred to as "Graham") and Ponceleon et al. (US Patent Application Publication No. 2003/0187642, filed Mar. 29, 2002 and published Oct. 2, 2003, hereafter referred to as "Ponceleon").

Regarding claim 28: Klemmer does not explicitly teach the remaining limitations as claimed. Ponceleon, though, discloses ***wherein extracting features of media content further comprises performing speech recognition on the media content.*** (See Ponceleon Abstract and paragraph [0003] discussing the use of automatic speech recognition for discovering salient sections in a speech transcription.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Ponceleon for the benefit of Klemmer in view of Graham, because to do so enabled a designer to implement a system to automatically discover salient segments in a speech transcript, as taught by Ponceleon in the Abstract. These references were all applicable to the same field of endeavor, i.e., automation information retrieval.

Regarding claim 29: Klemmer does not explicitly teach the remaining limitations as claimed. Ponceleon, though, discloses ***wherein extracting features of media content further comprises performing event detection on the media content.*** (See Ponceleon paragraph [0007] discussing the detection of events occurring in the news.)

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-Patent Literature

Hecht, David L., "Printed Embedded Data Graphical User Interfaces", Computer, Vol. 34, Issue 3, Mar. 2001, pp. 47-55.

Arai, Toshifumi, et al., "PaperLink: A Technique for Hyperlinking from Real Paper to Electronic Content", CHI 97, Atlanta, GA, Mar. 22-27, 1997, pp. 327-334.

US Patents

Philyaw et al	6,745,234
Philyaw et al	6,098,106

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean Bolte Fleurantin
Primary Examiner
TC 2100

January 18, 2008

Robert Stevens
Examiner
Art Unit 2162